

The Future of Health Research in Saskatchewan: We need your input!

On behalf of the



**Saskatchewan
Health Research
FOUNDATION**

Project Consultants: On Management Ltd. and Insightrix Inc.
Calgary, AB Saskatoon, SK

The paper and questions are also available on
the internet at:
www.shrf.ca
and
www.insightrix.com/shrfsurvey

Shaping the future

The Minister of Health has asked the Saskatchewan Health Research Foundation (SHRF) for advice and assistance in developing a provincial health research strategy. The provincial strategy will establish priorities and directions for health research in Saskatchewan and guide SHRF and others in their work to help achieve the new vision.

Specifically, the Minister of Health asked SHRF to offer advice about:

- identifying strategic advantages for Saskatchewan-based health research;
- articulating a balance in the different forms of health research;
- establishing priorities for health research; and
- ensuring health research directly contributes to the improvement of health services, health policy, and the health status of Saskatchewan people.

This initiative flows from *The Action Plan for Saskatchewan Health Care* (December 2001), which contained a renewed commitment to strengthening health research in Saskatchewan.

About SHRF

The Saskatchewan Health Research Foundation (SHRF) is a new provincial agency that reports to the Minister of Health and is responsible for organizing, managing and allocating most provincial health research funding in Saskatchewan. It is governed by a board of directors who are university research leaders and administrators, government representatives, and people working in the private sector.

SHRF evolved from previous agencies, the Saskatchewan Health Research Board (1979-1992) and the Health Services Utilization and Research Commission (1992-2003). Like the earlier agencies, it will work to stimulate, promote, and support health research in Saskatchewan.

SHRF's legislation also directs it to make funding decisions that reflect provincial priorities, generate additional sources of research funding, and ensure funded research is translated into benefits for the health system and the province.

For details about SHRF's mandate, activities, board and staff, please visit our website.

Saskatchewan Health Research Foundation
253 - 111 Research Drive
Atrium Building, Innovation Place
Saskatoon SK S7N 3R2 Canada
Phone: 306-975-1680 Fax: 306-975-1688
Website: www.shrf.ca

Developing advice

We are doing several things to help us develop our advice for a provincial health research strategy: background research using existing information; a broad survey open to anyone in Saskatchewan; and round-table discussions for invited participants.

Figure 1: Project Timelines

May – June 2003	July – August 2003	September – October 2003	November 2003	December 2003
Background research and key informant interviews	Discussion paper prepared outlining issues	Consultation: discussion paper distribution and responses	Final report to Saskatchewan Health Research Foundation	Advice to Minister of Health

To be sure our advice reflects a wide range of perspectives, we are asking as many people and organizations as possible from around the province to give us their views. We want to hear from many sectors: universities, regional health authorities, the business community, charitable foundations, community groups, and the public. We want to hear from many kinds of individuals—researchers, health care providers, administrators, community leaders, teachers, students, business people, volunteers, and interested members of the public.

We want to hear about strengths and opportunities in Saskatchewan; pressing health issues that could benefit from more research; critical gaps in research activity and research support that need to be addressed; and ways to ensure research leads to benefits for health, health care, training, and the economy.

This document is intended to provide a current brief backdrop of the “picture” of health research in Saskatchewan. Its purpose is to give you at least a sketch of what exists—where we are succeeding; the areas that need improvement; some of the most pressing health issues in our province; and some of the indications of the demographic direction our population is taking.

When you have finished reading the document, we hope you will respond to the survey questions on Pages 10 and 11. We need your response by October 15, 2003.

Benefits of health research

The critical contribution that health research makes to society is widely recognized (e.g., *Caring for Medicare, 2001*; *Healthy, Wealthy, and Wise, 1995*; *Health Research: An investment in Canada's Well-Being, 2003*).

A strong core of health research:

- produces health discoveries that lead to better products and services;
- provides evidence for sound health care decision-making;
- helps address health issues or system issues of particular importance;
- provides a source of leadership for ongoing adaptation and improvement in health;
- sustains health science education for our next generation of health service providers and researchers;
- builds strong programs that attract good researchers, teachers, and students;

- provides opportunities for highly skilled jobs; and
- offers the potential for innovative business opportunities.

For a variety of reasons, Saskatchewan has lower levels of health research activity than many other parts of Canada, including some provinces of similar size. In fact, health research activity is concentrating more and more in the larger provinces. This means our province sees fewer of the above benefits than it should.

Finding ways to provide adequate resources for research is important. However, it is also important to ensure that those resources are used wisely to achieve goals that are important to Saskatchewan. We need to consider how Saskatchewan can generate additional resources for health research and what its top priorities should be for using precious resources for greatest benefit.

What is health research?

You may be used to thinking of health research as work in laboratories to develop new drugs or understand how various cells work in the body. You may also think of research that tests various treatments in groups of patients. Such basic biomedical and clinical studies are two important types of health research, but in recent years there has been growing recognition of the importance of other types as well. For example, research that helps us understand how to deliver health services to people in all parts of the province, including those who live many miles from a large city, is important knowledge to have for policy making. Research that helps us to understand the impact of things in our everyday lives, such as the effect of social support from friends and family, to help promote healthier living, is also vital.

The new definition of health research has gone beyond the scope of only the biomedical model. The Canadian Institutes of Health Research (CIHR—Canada's major health research funding agency—defines four categories or “pillars” of health research: **basic biomedical research** (laboratory science); **clinical research** (patient oriented); **health services and policy research** (the health delivery system); and **psychosocial, cultural and environmental determinants** of health (population health).

How does it get done?

Health research occurs in a variety of places, including universities, teaching hospitals and other parts of the health system, government departments, and companies that develop health-related products and inventions. Researchers—especially those in university settings—need to secure additional, external funds to carry out their projects, so funding becomes a central issue in fulfilling research goals.

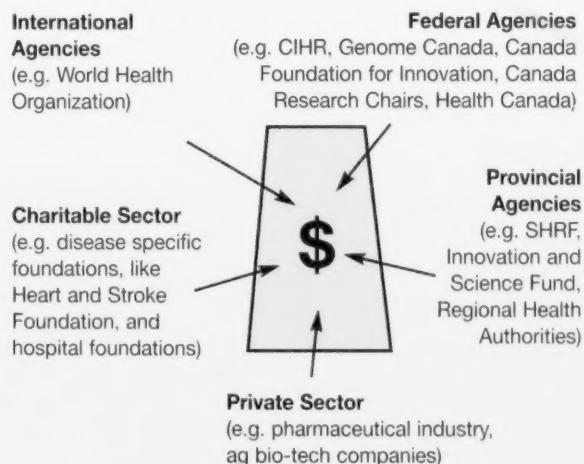
The topic of a research project can be determined by the curiosity of the researcher or by priorities set by funding bodies or by the researcher's employer. Curiosity-based research is important because of the intense commitment it inspires in the researcher and the opportunity to discover new insights leading to future innovation. Priority-based research is also important because it helps society address pressing issues.

Public health research is funded from various sources. Usually, researchers compete for funds and the demand often exceeds available resources, meaning not all good research is funded. In the competitive model, the goal generally is to fund excellence—the ‘best’ research regardless of where it is done.

Private sector companies, especially in the pharmaceutical industry, are also making large investments in health research—mostly clinical trials to test new drugs—and now account for almost as much funding as public and charitable agencies do in Canada.

Figure 2

Health Research Funding in Saskatchewan



Health research in Saskatchewan

Most of Saskatchewan's health research occurs within the university environment, although there is growing research activity within the health delivery system. Since detailing all health research activity is beyond the limits of this paper, the sections below offer a broad overview of the health research environment and some current activity in Saskatchewan.

University-based research

There are three universities in Saskatchewan, all with health research activity:

The **University of Saskatchewan** (U of S) is home to the vast majority of the province's health research. This reflects its uniquely wide range of health science and health-related education programs, its links to the health service delivery system, and its role as a research-intensive doctoral degree-granting institution. Health research makes up about 1/3 of all research activity at the U of S.

An integrated planning process is underway that will identify research, teaching and service priorities, affecting all programs. In addition to a full range of human science and health-related programs, the U of S is also home to animal health science programs and extensive plant and agricultural science—a unique mix in Canada.

The **University of Regina** (U of R) has pockets of strength in health research areas, notably in population health and health policy. It also has considerable strength in information systems. Its proximity to the provincial government provides opportunities for linkages with policy makers.

The **First Nations University of Canada** (FNUC), newly evolved from the Saskatchewan Indian Federated College, is developing its interest in health-related training, including research, for aboriginal people.

Figure 3 shows the distribution of research in Saskatchewan currently funded by CIHR and by SHRF, capturing the bulk of health research activity

in the province, conducted by the universities and their partners. The data show that most publicly funded research in Saskatchewan falls into the basic biomedical category and that we are very short on publicly funded clinical research. The figure also demonstrates recent strong showing by Saskatchewan researchers in the health services and population health areas. Much of this comes from CIHR's special strategic initiatives.

Figure 3: Current Competitively Funded Health Research in Saskatchewan by Type

Type of Research	CIHR	SHRF	Combined
Basic Biomedical	50%	67%	54%
Clinical	2%	6%	3%
Health Services and Systems	13%	16%	14%
Population Health	35%	11%	29%
Total	100%	100%	100%
	\$24.2 M	\$8.7 M	\$32.9 M

Note: Grants and awards include the relevant portions of the Regional Partnership Program. They have varying start dates and lengths (from one to six years). This is a snapshot of activity as of July 2003. This does not include SHRF's funding to certain targeted research groups.

Health system research

There is an increased emphasis on evaluation and evidence-based decision-making among Regional Health Authorities (RHAs) and in government, making linkages between the health system and health researchers more compelling than ever. Some RHAs are developing research capacity, but the main strengths are in the Saskatoon and the Regina Qu'Appelle regions, where research departments assist with program planning and evaluation. Saskatoon RHA is also the site of much academic health research because of its close links to university health science education.

Recently, the Health Quality Council (HQC) was established to explore innovative ways for improving health services, making it an important player in health system research.

Opportunities and issues

In the preliminary stages of this project, we talked with some opinion leaders in the province about Saskatchewan's key opportunities and issues in health research. Those frequently mentioned are noted below.

Some opportunities

- **Interdisciplinary research:** Saskatchewan has huge potential to benefit from research where a mix of perspectives enriches the research and health outcomes. This includes unique opportunities for work on news-making health issues like food and water safety, biotechnology, infectious disease control, and rural and remote health service delivery.
- **Academic Health Sciences Network:** This recent formal partnership of universities, health regions, and government will improve the co-ordination of service, research and teaching relationships.
- **Canadian Light Source:** This Canadian resource will help advance life sciences research and attract top-notch researchers and students. Some health-related beam lines being planned will focus on drug development; structural genomics; and imaging and therapy research in humans and animals.
- **Aboriginal peoples' health research:** All three universities have identified aboriginal health as an important area for increasing expertise and activity, recognizing the need for a cultural shift in how such research is done and how services are delivered, in both education and health care.
- **Alliances:** Increasingly, the four Western provinces are building alliances in health research and related activities. For example, the Canada West Health Innovation Council (CWHIC) explores health research that has economic development potential (e.g., functional foods, clinical trials). There is also a move to build a western health services research alliance.
- **Research parks:** Innovation Place in Saskatoon was a 1980s development by the Saskatchewan Government and the U of S. It builds on the strengths of university research in agriculture, information technologies, resources and the life sciences. The Regina Research Park is a similar more recent development, with strengths in information technology and natural resources.

Some issues

- **Reduce "brain drain":** We lose researchers and specialists to other places because they can offer more protected time for research, more reasonable workloads, or more research support and opportunity. A 2003 Canada West Foundation study showed that "retaining our young people" was the top issue for Saskatchewan people—ahead of improving the health care system and protecting the environment.
- **Build group research:** The research world has embraced the value of research done in groups. The days of the sole researcher working in isolation are fading; breakthroughs will come through greater interaction among disciplines, sharing ideas, facilities and resources. Saskatchewan has not moved as quickly in this direction as other jurisdictions, affecting its competitiveness for national funding.
- **Improve health research facilities:** Current health research facilities at the U of S are crowded and below standard in certain respects. It will be impossible to improve and expand health research without appropriate space, equipment, and information resources. A new health sciences building is being planned to provide modern research spaces that meet government-approved safety standards and increase opportunities for researchers to work together.
- **Support College of Medicine renewal:** After several reviews over recent decades, the College of Medicine is now undergoing renewal through an integrated planning process. The Province recognizes the importance of the College of Medicine to Saskatchewan for its role in education, service delivery and research and is supporting the renewal process (*Action Plan for Saskatchewan Health Care*, 2001).

Research funds: How are we doing?

National sources

In Canada, health research funding, and therefore activity, is concentrating more and more in the bigger universities in the bigger provinces, such as the University of Toronto in Ontario and McGill University in Quebec. Partly, this is because bigger centres can devote more resources to the research enterprise. It is also partly because few agencies have explicit policies for ensuring a strong research base in all provinces. This trend is problematic when we reflect on the important link between health research, health science education, and health care.

Compared to other provinces, Saskatchewan does not do as well in obtaining its share of national funds. For example, Saskatchewan has 3.3% of Canada's population but brings home only 1.6% of CIHR funds in peer-reviewed competitions (2002 data). Researchers in Manitoba, with a similar population, receive almost three times as much funding from CIHR as Saskatchewan researchers do, and researchers in Quebec and Alberta do the best on a population basis (*CIHR Annual Report*, 2001).

Higher funding makes more research activity possible; less means that Saskatchewan is missing opportunities for health research. Funding from CIHR is also a key factor in determining allocations from other national programs like the Canada Research Chairs. Therefore, it is important that Saskatchewan improve its performance in CIHR funding competitions.

Recently, work by the University Co-ordinator of Health Research and support from a special Regional Partnership Program have served to improve Saskatchewan's share of federal health research funding somewhat, but more work is needed.

Saskatchewan does fairly well in attracting national funding from the Heart and Stroke Foundation but not so well from other national charitable agencies and particularly poorly from the National Cancer Institute of Canada.

Provincial sources

For many years, Saskatchewan's provincial funding for health research was about \$5 million. This included funding for the Health Services Utilization and Research Commission (HSURC) and for certain research units. In 2002-03, Saskatchewan Health provided a 40% increase—\$2 million per year—and promised to continue the upward trend, as resources allow.

Early in 2003, HSURC split into two new agencies, the Health Quality Council and the Saskatchewan Health Research Foundation. SHRF carries on HSURC's core funding programs including research establishment funds for new faculty, career development through research fellowships, and several other strategic initiatives. It also supports the University Co-ordinator of Health Research position and contributes to the Regional Partnership Program. The recent funding increase will allow SHRF to develop some new research-support programs.

SHRF also directs funds to certain targeted research groups, including some that used to be funded directly by Saskatchewan Health: Canadian Centre for the Analysis of Regionalization and Health; Indigenous Peoples' Health Research Centre; Institute for Agricultural, Rural, and Environmental Health; Neuropsychiatry Research Unit; Saskatchewan Cancer Agency (research); and Saskatchewan Population Health and Evaluation Research Unit. This support comprises about 50% of SHRF's \$6 million/year budget.

Other provincial sources include Saskatchewan Industry and Resources, via its Innovation and Science Fund; this amount varies from year to year, but in 2002-03, it was \$1.5 million.

Provincial funding for universities also supports the research done there.

About our province

Our population

Saskatchewan's population has hovered at one million for decades but its makeup is changing dramatically. It is becoming more urban than rural and, generally speaking, has a growing young aboriginal population and an aging non-aboriginal population. Large numbers of its well-educated young adults leave the province, reducing the number of people in their prime working and parenting years. These factors shape demands on the health system and our ability to provide for our citizens. On a positive note, the dip in population expected to follow the Baby Boomer generation in many parts of Canada is not expected in Saskatchewan and these young people, many of them aboriginal, are a very important resource for the province.

Our health issues

A March 2003 Health Quality Council study, *A Picture of Health in Saskatchewan*, describes some key health characteristics of our population:

- Leading causes of potential years of life lost: injuries, suicide, and lung cancer;
- Most common chronic conditions: arthritis, pain, and high blood pressure;
- Conditions accounting for most hospital days: circulatory diseases, respiratory diseases, and mental disorders;
- Rates of smoking and obesity, major health risks: higher than the Canadian average; and
- Life expectancy: 78.5 years, which is slightly below the Canadian average of 79.0.

These data match, to a large extent, pressing health issues that could benefit from more research evidence as identified by key informants in early planning for this project:

- Seniors care: palliative care, home care, living with chronic conditions;
- Health service delivery: particularly pertinent to rural and remote areas where the issues of access, range of services and transportation are concerns;

- Chronic conditions: arthritis, pain, high blood pressure, cancer, multiple sclerosis, and diabetes;
- Agricultural and environmental health issues: farm accidents, environmental toxins, and water quality; and
- Aboriginal health issues: diabetes, tobacco use, mental health, fetal alcohol syndrome, substance abuse, accidents and injuries.

Our health delivery system

The Action Plan for Saskatchewan Health Care (December 2001) has reshaped the health delivery system. Health services are now delivered by 12 regional health authorities (RHAs), down from 32. The two largest RHAs, in Regina and Saskatoon, provide most specialized services for the province.

Other changes include the creation of the Health Quality Council—a first in Canada—to monitor and help improve the system's performance; more resources for training and recruiting health care providers including Aboriginal citizens; and a focus on primary health care delivery models to improve service access and co-ordination in all parts of the province.

Rural and remote health service delivery is a critical issue in Saskatchewan. The dispersed rural and remote populations in Saskatchewan's farming country and in the north create both a need and a potential niche area for study that could benefit our province, other parts of Canada, and the world with remote and dispersed populations.

Saskatchewan has some of the oldest—and most comprehensive—linkable administrative health databases in Canada that could provide rich potential for research, planning, and evaluation. However, Saskatchewan has not taken advantage of this resource as well as other provinces have. The province is developing its health information network to connect all health regions and providers, and support an electronic health record system that will enhance co-ordination of patient care.

The national context

On the federal level, research and development are high priorities, reflected in two documents released in 2002: *Achieving Excellence* and *Knowledge Matters*. Goals include improving research and development, and building an inclusive and skilled workforce. Saskatchewan needs to be prepared to tap into federal opportunities arising from these new directions.

Related developments on the federal level that are shaping health research include:

- increased emphasis on knowledge as a strategic national asset;
- increased research investment (more funds for the federal research councils, new support for the indirect costs of research at universities, and a larger investment in training the next generation of researchers); and
- programs that build research infrastructure (Canada Foundation for Innovation) and recruit and retain our best minds (Canada Research Chairs).

As Canada's major health research funder, CIHR is also moving in more strategic directions, identifying priorities areas for research, partnering with many sectors, and assisting researchers to excel at international levels. About 70% of its \$650 million annual budget goes to curiosity-based research, while the other 30% goes to 13 research institutes to support priority areas, such as cardiovascular and respiratory health, aboriginal peoples' health, and aging.

CIHR's legislation (2000) made a clear link between strong health research and a strong health system across Canada. More recently Roy Romanow (2002) in his report, *Building on Values: The Future of Health Care in Canada*, urged much stronger links between researchers and the people who use research results, by creation of Centres for Health Innovation.

Other major funders on the national scene are also developing strategic areas.

Making sure research matters:

The investment in health research is maximized through "knowledge translation". What does this mean, exactly? Whose responsibility is it? What are the best models?

Over the past decade or so, the challenging issue of ensuring research helps improve society has been receiving more attention. The benefits sought are those we outlined on Page 2. The challenge is how to build better bridges between research and application, so that research helps improve society and the needs of the real world help shape research directions. More work is definitely needed to define best approaches and then to implement them.

This emphasis on knowledge translation does not mean that curiosity-based research loses value: it is an essential aspect of the research spectrum that will be always be important for creating a foundation of knowledge from which new practices and the evolution of new products.

Here are some examples of knowledge translation:

- Key health issues are addressed through new research or by applying knowledge that already exists;
- Promising new treatments developed in research laboratories are tested in the 'real world';
- Those who are affected by research are involved in and doing the research;
- Research knowledge from rural Sweden is used in rural Saskatchewan if it makes sense;
- The private sector develops and produces products and services beneficial to health and the economy; and
- All of us who could use health research knowledge can find it and understand it.

Adding it all up

- Health research is important because of its potential benefits for health status, health care, health professionals' education, and the broader economy.
- Saskatchewan health researchers are doing—and have the potential to do more—nationally and internationally competitive research, contributing to our nation's innovation and knowledge agenda.
- Saskatchewan's level of health research activity is low compared with other jurisdictions in Canada, and we need to find ways to increase this activity.
- Saskatchewan has some pressing health and health service issues, and we need to be sure those are being addressed with the best available evidence.
- Health research in Saskatchewan is also influenced by Canadian and international trends, presenting both the challenges of competition and opportunities for tapping into new resources.
- Resources are finite, and Saskatchewan needs to decide which goals are most urgent to pursue and put in place a plan to achieve them.

Over to you...

Now that you've considered the challenges and the potential outlined above, it's time for your input. Please see the survey on the following pages. Your response is important to us. We need to hear from as many people in as many walks of life as possible. The future of health research in Saskatchewan will be shaped by the input we receive. We look forward to yours.

Saskatchewan is at a critical crossroads in shaping the future of its health research.

There is a renewed commitment of interest and resources.

You have a rare opportunity to have input into what we do with that commitment.

We need to hear from you now.

To give us your feedback

Respond online:

<http://www.insightrix.com/shrfsurvey>

or

Respond in writing:

Health Research Strategy Project
Insightrix Inc.
113-15 Innovation Blvd.
Saskatoon, SK S7N 2X8
Fax: 306-384-5655

Remember: In order to have your voice heard, we need your input by October 15, 2003

If you choose to use this paper survey rather than responding online, please feel free to photocopy it or tear it from the booklet to complete and send in.

PART 1: Questions About Future Directions

If you need more room for your responses, please feel free to attach extra sheets.

1. In which health areas should Saskatchewan researchers do more in the coming years, and why?
2. What structures or processes are missing that are needed to support strong and effective health research in Saskatchewan? How could this make a difference?
3. Are there things being done now in the health research arena in Saskatchewan that could be discontinued? Why?
4. What strengths and opportunities are important to focus on when planning the future of health research in Saskatchewan?
5. What can be done to ensure that research knowledge helps improve health care and health status in Saskatchewan?
6. What are the two most important actions that should be taken in Saskatchewan to strengthen health research here?
7. We welcome other comments about the future directions of health research in Saskatchewan.

PART 2: Measuring success in health research

We want to look back in five or ten years and say proudly that 'health research in Saskatchewan is flourishing and making important contributions to life in the province.' How will we know whether we've been successful? Some possible indicators are listed below. Tell us how important you think each indicator is for measuring success in health research, by rating it on the scale provided.

Suggested Indicators for Measuring Health Research Success	Circle one				
	Not important				Very important
Research improves health service delivery in the province.	1	2	3	4	5
There are more young people working and studying in health fields in the province.	1	2	3	4	5
Health research done around the world is used to benefit Saskatchewan residents.	1	2	3	4	5
People in Saskatchewan live longer and healthier lives because of health research done in the province.	1	2	3	4	5
Saskatchewan attracts researchers from other parts of Canada and the world to work here.	1	2	3	4	5
There are adequate numbers of highly skilled health professionals working in Saskatchewan.	1	2	3	4	5
Saskatchewan has strong linkages with neighbouring western provinces for health research and development.	1	2	3	4	5
The province's share of national research dollars is at least the same as its share of the Canadian population – just over 3%.	1	2	3	4	5
Saskatchewan has companies that are successful in commercializing our health research discoveries.	1	2	3	4	5
Other? Specify:					

PART 3: Finally ... about you

To help us categorize our findings, please answer these few questions:

- I am mainly a ☐ Researcher:
My main type of research is:
☐ Manager/administrator?
☐ Health service provider?
☐ Student?
☐ Board Member?
☐ Other? _____
- Mainly at ☐ University
☐ Regional Health Authority
☐ Charitable Agency
☐ Government
☐ Private sector
☐ Other, specify: _____
- I am ☐ 34 years old or younger
☐ 35 to 49 years old
☐ 50 to 64 years old
☐ 65 years old or more
- My postal code is _____